



April 7, 2018

via electronic filing

Jose Albuquerque Division Chief, International Bureau Satellite Division Federal Communications Commission 445 12th Street, SW, Room TW-A325, Washington, DC 20554

Re: Annual Fee Concerns of Academic Researchers Streamlining Licensing Procedures for Small Satellites, IB Docket No. 18-86

Dear Mr. Albuquerque,

The undersigned academic researchers in the areas of aerospace engineering, space sciences, and other related fields respectfully write to express concerns with the Commission's proposed approach to annual regulatory fees for small satellite systems in its draft Notice of Proposed Rulemaking in the above-referenced docket. We urge the Commission to amend the draft NPRM to seek comment on annual regulatory fees for small satellite systems to ensure a full record is developed on this critical issue.

We are encouraged that the Commission acknowledges the fundamental differences between traditional and small satellites systems and is taking the important step of proposing rules tailored to the needs of small satellite system operators. A streamlined licensing process for small satellites systems is sorely needed to promote the continued deployment of innovative and low cost small satellite systems. As the Commission recognizes, the current Part 25 application process is not suitable for small satellite systems because of the high cost of the Commission's application and regulatory fees.²

As the Commission noted, small satellite systems deployed by universities play a key role in "advancing scientific research." Institutions like California Polytechnic State University and Stanford University created the Cubesat standard and continue to drive innovation in small satellite system designs and operations.⁴

Absent changes, however, the annual regulatory fee of \$135,350 currently assessed to all non-geostationary-satellite orbit (NGSO) systems will effectively prevent universities seeking to deploy small satellite systems from utilizing the proposed licensing procedures.⁵

¹ Streamlining Licensing Procedures for Small Satellites, Draft Notice of Proposed Rulemaking, IB Dkt. No. 18-86 (Mar. 27, 2018) ("Draft NPRM"), https://transition.fcs.gov/Doily_Poloses/Doily_Business/2018/db0327/DOC

https://transition.fcc.gov/Daily_Releases/Daily_Business/2018/db0327/DOC-349939A1.pdf.

 $^{^{2}}$ *Id.* at ¶ 13.

³ *Id.* at ¶ 1.

⁴ *Id.* at \P 5.

⁵ *Id.* at ¶ 77 (describing the annual regulatory fee for NGSO systems).

This would inhibit the continued development of small satellite systems and stymie the Commission's goal of promoting this dynamic sector. The short deployment duration and the reduced impact of small satellite systems on the Commission's administrative activities warrants addressing the issue of regulatory fees in this proceeding.

In the draft NPRM, the Commission declines to seek comment on this critical issue. Instead, the Commission proposes to defer addressing this issue to its annual review of the overall regulatory fee schedule,⁷ pointing to the codependent nature of the various fees across individual categories.⁸

While we hope that the Commission's intends to address the annual regulatory fee for small satellite systems in the context of the annual review of the overall schedule, we believe a better course of action would be for the Commission to do so in the context of this rulemaking. In doing so, the Commission can develop a fuller record of both the substantial impact of annual fees on the ultimate success of this initiative and the relationship of annual fees to other dimensions raised in the rulemaking, such as the scope of eligible satellite systems.

Moreover, the Communications Act permits the Commission to do so. In general, the Commission must "adjust the regulatory fee schedule to take into account . . . factors that the Commission determines are necessary in the public interest." However, the Commission may "add, delete, or reclassify services . . . to reflect additions, deletions, or changes in the nature of its services as a consequence of Commission rulemaking proceedings." The draft NPRM contemplates significant changes to the Commission's services for small satellite system operators. The Commission should therefore seek comment in this proceeding on whether the regulatory changes proposed in the draft NPRM impact the appropriateness of its regulatory fees. ¹¹

Due to the limited resources available to academic programs, ¹² the Commission's annual regulatory fees for small satellite systems present a formidable economic barrier. The social benefits of innovation, testing, and research can only be realized through the proposed streamlined process if the fees reflect the shorter duration of small satellite missions and

⁷ *Id.* at ¶ 77.

⁹ 47 U.S.C. §159(b)(1)(A).

⁶ *Id.* at ¶ 1.

⁸ *Id.*

¹⁰ *Id.* §159(b)(3).

¹¹ See Draft NPRM ¶¶ 29-30 (proposing to prohibit small satellite licensees from seeking license extensions or launching replacement spacecraft under an existing license), ¶¶ 41-46 (proposing to exempt small satellite licensees from participating in the Commission's processing round procedures).

¹² Nat'l Research Council, Building Hawaii's Innovation Economy: Summary of a Symposium 95 (The National Academies Press ed., 2012) (noting that universities do not have a convenient way to get small satellites they have built into space at reasonable cost), https://www.nap.edu/read/13267/chapter/14.

acknowledge the clear benefit that academic institutions bring our nation through innovative research and high-quality education. Therefore, we urge the Commission to amend the draft NPRM to seek comment on annual regulatory fees for small satellite systems to ensure a full record is developed on this critical issue.

Respectfully submitted,

/s/

Blake Reid, Director

Megan Chavez, Student Attorney Galen Pospisil, Student Attorney Stefan Tschimben, Technical Advisor

Samuelson-Glushko Technology

Law & Policy Clinic

tlpc@colorado.edu · 303.492.0548

Riccardo Bevilacqua

Professor of Mechanical and Aerospace Engineering, University of Florida

Kerri Cahoy

Associate Professor of Aeronautics and Astronautics, Massachusetts Institute of Technology

John Conklin

Assistant Professor and Director of Precision Space Systems Lab, University of Florida

James Cutler

Associate Professor and Director of the Michigan Exploration Lab, University of Michigan

O

Will Edmonson

Langley Professor, North Carolina A&T

State University

Norman Fitz-Coy

Associate Professor of Mechanical and

Aerospace Engineering, University of Florida

David Klumpar

Research Professor and Director of the Space Science and Engineering Lab, Montana State

University

Glenn Lightsey

Professor and Director of the Space Systems Design Lab, Georgia Institute of

Technology

Ben Malphrus

Professor of Space Science and Executive Director of Space Science Center, Morehead

State

Scott Palo

Professor and Director of the Space Technology Integration Lab, University of Colorado

CC: Karl Kensinger, International Bureau

Rachael Bender, Office of Chairman Pai Louis Peraertz, Office of Commissioner Clyburn Erin McGrath, Office of Commissioner O'Rielly Umair Javed, Office of Commissioner Rosenworcel Jamie Susskind, Office of Commissioner Carr Will Adams, Office of Commissioner Carr